WHAT IS CLAIMED IS:

1. A nitride semiconductor device comprising a p-type region comprising one or more p-conductivity semiconductor layers of nitride, a n-type region comprising one or more n-conductivity semiconductor layers of nitride and an active layer of a nitride semiconductor which is positioned between said p-type region and said n-type region, at least one layer of said p-type region is a super lattice structure layer comprising first and second nitride thin layers, said first thin layers having different composition from those of said second thin layers and each of said first thin layers and each of said second thin layers being laminated alternately.

2. A nitride semiconductor device as claimed in Claim 1, wherein said first thin layers of said super lattice structure layer are a nitride semiconductor having a thickness of not more than 100 angstroms and said second thin layers are a nitride semiconductor having different constitutions from the first layer and a thickness of not more than 100 angstroms.

3. A nitride semiconductor device as claimed in Claim 2, wherein at least one layers of said first and second thin layers are a nitride semiconductor containing Al.

4. nitride semiconductor device as claimed in Claim 3, wherein said nitride semiconductor containing Al is a nitride semiconductor represented by the formula $Al_YGa_{1-Y}N$ $(0<Y\leqq 1)$.

5. A nitride semiconductor device as claimed in Claim 4, wherein said first layer is a nitride semiconductor represented

by the formula $In_XGa_{1-X}N$ ($0<X\leqq 1$) and said second layer is a nitride semiconductor represented by the formula $Al_YGa_{1-Y}N$ ($0<Y\leqq 1$, $X=Y\neq 0$).

6. A nitride semiconductor device as claimed in Claim 5, wherein said first layer is a nitride semiconductor represented by the formula $In_XGa_{1-X}N$ ($0<X\leqq 1$) and said second layer is a nitride semiconductor represented by the formula $Al_YGa_{1-Y}N$ ($0<Y\leqq 1$, $X=Y\neq 0$).

7. A nitride semiconductor device as claimed in Claim 2, wherein said first layer and said second layer have a thickness of not more than 70 angstroms, respectively.

8. A nitride semiconductor device as claimed in Claim 2, wherein said first layer and said second layer have a thickness of not less than 10 angstroms, respectively.

9. A nitride semiconductor device as claimed in Claim 2, wherein at least one layers of said first and second thin layer are doped with an impurity having n-type or p-type conductivity .

10. A nitride semiconductor device as claimed in Claim 9, wherein said impurity concentration doped to said first layer and said second layer are different from each other.

11. A nitride semiconductor device comprising a n-type region including a n-type cladding layer, a p-type region including a p-type cladding layer, and an active layer capable of emitting laser between said n-type region and said p-type region, wherein said n-type clad layer is a super lattice structure layer comprising first thin layers of a nitride semiconductor having a thickness of not more than 100 angstroms and second thin layers of a nitride semiconductor having a different constitution from those of said

first layers and a thickness of not more than 100 angstroms, and said p-type cladding layer is a super lattice structure layer comprising third thin layers of a nitride semiconductor having a thickness of not more than 100 angstroms and fourth thin layers of a nitride semiconductor having a different constitution from said third layer and a thickness of not more than 100 angstroms.

12. A nitride semiconductor device as claimed in Claim 11, wherein a ridge portion is formed on said p-side cladding layer and on the layer located over said p-side cladding layer in a manner that the longitudinal direction of said ridge portion coincidences with the direction of resonance and the ridge has a desired width.

13. A nitride semiconductor device comprising a n-type region having one or more nitride semiconductor layers, a p-type region having one or more nitride semiconductor layers and an active layer of a nitride semiconductor between said n-type region and said p-type region, wherein at least one layer of said n-type region is a super lattice structure layer comprising first and second nitride semiconductor layers having different constitutions and different concentrations of a n-type impurity from each other.

14. A nitride semiconductor device comprising a n-type region having one or more nitride semiconductor layers, a p-type region having one or more nitride layers and an active layer made of a nitride semiconductor between said n-type region and said p-type region, wherein at least one layer of said p-type region is a super lattice structure layer comprising third and fourth nitride semiconductor layers having different constitutions and

different concentrations of a p-type impurity from each other.

15. A nitride semiconductor device comprising a n-type region having one or more nitride semiconductor layers, a p-type region having one or more nitride semiconductor layers, and an active layer of a nitride semiconductor between said n-type region and said p-type region, wherein at least one layer of said n-type region is a super lattice structure layer comprising first and second nitride semiconductor layers having different constitutions and different concentrations of a n-type impurity from each other, and at least one layer of said p-type region is a super lattice structure layer comprising third and fourth nitride semiconductor layers having different constitutions and different concentrations of a p-type impurity from each other.

16. A nitride semiconductor device as claimed in Claim 23 or 25, wherein said first nitride semiconductor layer of said n-type region has a higher band gap energy and a larger concentration of the n-type impurity than said second nitride semiconductor layer.

17. A nitride semiconductor device as claimed in Claim 16, wherein said first nitride semiconductor layer is made of $Al_YGa_{1-Y}N$ ($0<Y<1$) and said second nitride semiconductor layer is made of $In_XGa_{1-X}N$ ($0 \leqq X<1$).

18. A nitride semiconductor device as claimed in Claim 17, wherein said second nitride semiconductor is made of GaN.

19. A nitride semiconductor device as claimed in Claim 16, wherein said second nitride semiconductor layer is not doped with a n-type impurity.

20. A nitride semiconductor device as claimed in Claim 13 or 15, wherein said first nitride semiconductor layer of said n-type region has a higher band gap energy and a smaller concentration of the n-type impurity than said second nitride semiconductor layer.

21. A nitride semiconductor device as claimed in Claim 20, wherein said first nitride semiconductor layer is made of $Al_YGa_{1-Y}N$ ($0<Y<1$) and said second nitride semiconductor layer is made of $In_XGa_{1-X}N$ ($0 \leqq X<1$).

22. A nitride semiconductor device as claimed in Claim 21, wherein said second nitride semiconductor is made of GaN.

23. A nitride semiconductor device as claimed in Claim 20, wherein said second nitride semiconductor layer is not doped with a n-type impurity.

24. A nitride semiconductor device as claimed in Claim 14 or 15, wherein said third nitride semiconductor layer of said n-type region has a higher band gap energy and a smaller concentration of the n-type impurity than said fourth nitride semiconductor layer.

25. A nitride semiconductor device as claimed in Claim 24, wherein said third nitride semiconductor layer is made of $Al_YGa_{1-Y}N$ ($0<Y<1$) and said fourth nitride semiconductor layer is made of $In_XGa_{1-X}N$ ($0 \leqq X<1$).

26. A nitride semiconductor device as claimed in Claim 25, wherein said fourth nitride semiconductor is made of GaN.

27. A nitride semiconductor device as claimed in Claim 24, wherein said fourth semiconductor layer is not doped with a p -type impurity.

28. A nitride semiconductor device as claimed in Claim 14 or 15, wherein said third nitride semiconductor layer has a higher band gap energy and a smaller concentration of the p-type impurity than said fourth nitride semiconductor layer.

29. A nitride semiconductor device as claimed in Claim 28, wherein said third nitride semiconductor layer is made of $Al_YGa_{1-Y}N$ ($0<Y<1$) and said fourth nitride semiconductor layer is made of $In_XGa_{1-X}N$ ($0 \leqq X<1$).

30. A nitride semiconductor device as claimed in Claim 29, wherein said fourth nitride semiconductor is made of GaN.

31. A nitride semiconductor device as claimed in Claim 24, wherein said third semiconductor layer is not doped with a p-type impurity.

32. A nitride semiconductor device as claimed in Claim 15, wherein said first nitride semiconductor layer of n-side super lattice structure layer has a higher band gap energy and a larger concentration of the n-type impurity than said second nitride semiconductor layer, and

said third nitride semiconductor layer of p-side super lattice structure layer has a higher band gap energy and a larger concentration of the p-type impurity than said fourth nitride semiconductor layer.

33. A nitride semiconductor device as claimed in Claim 15, wherein said first nitride semiconductor layer of n-side super lattice structure layer has a higher band gap energy and a larger concentration of the n-type impurity than said second nitride semiconductor layer, and

said third nitride semiconductor layer of p-side super lattice structure layer has a higher band gap energy and a smaller concentration of the p-type impurity than said fourth nitride semiconductor layer.

34. A nitride semiconductor device as claimed in Claim 15, wherein said first nitride semiconductor layer of said n-side super lattice structure layer has a higher band gap energy and a smaller concentration of the n-type impurity than said second nitride semiconductor layer, and

said third nitride semiconductor layer of said p-side super lattice structure layer has a higher band gap energy and a larger concentration of the p-type impurity than said fourth nitride semiconductor layer.

35. A nitride semiconductor device as claimed in Claim 15, wherein said first nitride semiconductor layer of said n-side super lattice structure layer has a higher band gap energy and a smaller concentration of the n-type impurity than said second nitride semiconductor layer, and

said third nitride semiconductor layer of said p-side super lattice structure layer has a higher band gap energy and a smaller concentration of the p-type impurity than said fourth

nitride semiconductor layer.

36. A nitride semiconductor device as claimed in any one of Claim 32 to Claim 35, wherein said first nitride semiconductor layer of said n-side super lattice structure layer is made of $Al_YGa_{1-Y}N$ ($0<Y<1$) and said second nitride semiconductor layer is made of $In_XGa_{1-X}N$ ($0 \leqq X<1$), and

said third nitride semiconductor layer of said p-side super lattice structure is made of $Al_YGa_{1-Y}N$ ($0<Y<1$) and said fourth nitride semiconductor layer is made of $In_XGa_{1-X}N$ ($0 \leqq X<1$).

37. A nitride semiconductor device as claimed in Claim 36, wherein said second and fourth nitride semiconductor layers are made of GaN, respectively.

38. A nitride semiconductor device as claimed in any one of Claims 32 to 35, either one of said first and second nitride semiconductor layers is an undoped layer not being doped with an n-type impurity.

39. A nitride semiconductor light emitting device comprising a n-type cladding layer, a p-type cladding layer and an active layer including a first nitride semiconductor layer containing In between said n-side cladding layer and said p-side cladding layer, wherein said n-side cladding layer is a super lattice structure layer comprising first nitride semiconductor layers and second nitride semiconductor layers containing Al and has a total thickness of not less than 0.5 μm wherein an average composition of Al in said n-side cladding layer is set in a way that the product of said average Al composition in % contained in

said n-side cladding layer multiplied by the thickness in μm of said n-side cladding layer is 4.4 or more.

40. A nitride semiconductor light emitting device as claimed in Claim 39 wherein said n-side cladding layer has a thickness of not less than 0.8 μm and an average Al composition of not less than 5.5 %.

41. A nitride semiconductor light emitting as claimed in Claim 39 wherein said n-side cladding layer has a thickness of not less than 1.0 μm and an average Al composition of not less than 5 %.

42. A nitride semiconductor light emitting device as claimed in Claim 39 wherein said n-side cladding layer has a thickness of not less than 1.2 μm and an average Al composition of not less than 4.5 %.

43. A nitride semiconductor light emitting device as claimed in Claim 39 wherein said p-side cladding layer is a super lattice structure layer comprising third nitride semiconductor layers containing Al and having a thickness smaller than said n-side cladding layer.

44. A nitride semiconductor light emitting device as claimed in Claim 43 wherein said p-side cladding layer has a thickness of less than 1.0 μm.

45. A nitride semiconductor light emitting device as claimed in any one of Claim 39 to 44 wherein the thickness of said n-side cladding layer and said p-side cladding layer including said active layer is set to range between 200 angstroms and 1.0 μm.